ABSTRACT OF THE DISCLOSURE

An apparatus for detection of any intruder passing through an electronic wall is disclosed. The electronic wall is formed by a millimeter-wave radar positioned at one end of the wall and a plurality of combinations of plane reflectors and retroreflectors placed along the floor of the wall as well as on structures at both ends. The wall is formed of a plurality of electromagnetic beams with each beam having two segments, one between the radar antenna and a plane reflector and the second segment between the plane reflector and a retroreflector. A sufficient number of beams inhabit the wall volume to make traversing the wall by an intruder without detection essentially impossible, even though the intruder should attempt such detection avoiding methods as crawling under or jumping over the assumed locations of the beams. The primary means of determining that an intruder is traversing the wall is the detection of one or more electromagnetic beams being partially or completely blocked. A secondary means of detection is the radar reflection from the intruder's person that may be used to determine the location of an intruder along the extent of the wall.